

Patent

Docket No. P24624 USA

PENCIL SHARPENER**ABSTRACT OF THE INVENTION**

5 A pencil sharpener having a sharpening sub-assembly for sharpening pencils, and first and second external shells having internal ribs defining surfaces for supporting the sharpening sub-assembly. Components of the sub-assembly are placed into corresponding portions defined by the internal ribs. The ribs ensure proper alignment of the components relative to the shell and each other, e.g. in the x- and y-directions. All components may be placed in the shell in a single direction, e.g. in a single axial direction (the z-direction). The components of the pencil sharpener are mounted in place upon fastening together of the first and second external shells. No internal or additional fasteners are required. The sharpening sub-assembly may include an electric motor, a gear assembly, and a cutter assembly including a cutter gear module having an annular ring gear, acting as a carrier support, and housing a pencil insertion switch and/or a receptacle presence switch.

10